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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,872	01/16/2002	Michael J. Yancey	WEYE118151/24380A	2180

28624 7590 02/07/2005

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EXAMINER	
FORTUNA, JOSE A	

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/051,872	YANCEY ET AL.	
	Examiner	Art Unit	
	José A. Fortuna	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed July 19, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: " introducing a never dried wet pulp directly from a pulp mil" and "introducing a never-dried wet pulp that has not been subjected to mechanically defibering." These have been introduced into claims 1 and 40 respectively and do not have support in the specification. While the specification page 4, lines 22-26 teaches: "The process may take wet pulp directly from a pulp mill and produce a singulated product from the never-dried pulp by using a drying process that singulates the pulp directly," it does not teach that that pulp is directly introduced into the dryer. Actually the specification teaches that the pulp from the mill can be carried to other process steps/devices, e.g., deflaker, shredding, etc., before the pulp is introduced to the drier, see page 34 and examples. As to claim 40, the specification teaches defibering steps, such as deflaking, see above, which contradicts the newly added limitation.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-28 and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 40 include the limitations of "treating the wet pulp with a crosslinking agent" which seems to be carried out after the pulp is introduced into the drier, i.e., the steps of introducing the pulp into the drier are indicated prior to the treating step(s); however, the specification teaches that the pulp is treated, not in the drier, but prior to the introduction of the pulp into the drier.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-28 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 the phrase " introducing a never dried wet pulp directly from a pulp mil" renders the claim indefinite, since it is unclear if the word "directly" can include intermediate steps/stages before the actual introduction of the fibers into the dryer. The specification seems to indicate that other steps can be performed to the fibers before the introduction to the dryer, see above.

In claim 5, the phrase "the knot" lacks of antecedent basis.

In claims 17-25, the phrases "the knot," "the accepts," and "the fines" lack of antecedent basis.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herron et al., US Patent No. 5,183,707 or Westland et al., US Patent No. 6,184,271, (102(a)), Graef et al., US Patent No. 5,437,417, (102(b)), or Wu et al., US Patent No. 6,074,524, (102(b)), or Naieni, US Patent No. 5,873,979, (102(b)) in view of Marsh, US Patent No. 4,253,822, further evidenced by Crowther et al., GB 888,845.

Regarding claims 1-8 and 40, Westland et al., Graef et al., Wu et al., and Naieni teach crosslinked fibers with low levels of Knots or Nits. They teach also the addition of fillers or other additives to the pulp before being singulated/defibrated or fluffed. The

crosslinking agents shown by the references are the same as the ones claimed, i.e., polycarboxylic acid and polymers of it. See Naieni, column 3, lines 8-26 and abstract; Wu et al. abstract and column 4, line 52 through column 5, line 7 and column 6, lines 10-50; Graef et al., abstract and column 3, lines 43-51, column 8, line 45 through column 9, line 7; Westland et al. abstract and column 7, line 41 through column 8 line 13, column 10, lines 47-58. Westland et al. teach in column 10, lines 47-58 that the Knot content of the crosslinked, defibrated pulp is preferably less than 5% and Graef et al. teach, see abstract, that the defibrated pulp has a low level of Nits, preferably less than 3. The references teach the use of dry market pulps as one of the preferred source of fibers and they are silent to the use of never-dried pulp(s). However, one of ordinary skill in the art would have reasonable expectation of success if never-dried pulps were used as the starting source of fibers. One of ordinary skill in the art would recognize that using dry market pulps is just a convenient way of obtaining fibers with fiber properties similar than that of never-dried fibers. Note that Herron et al., teach that never dried fibers can be used, see column 4, lines 35-50, and than they are the preferred type of fibers.

None of the above references teach the use of air-jet drier to dry the treated fibers. However, Marsh teaches a method and device for drying wood pulp by using an air jet. The advantages of using such a method are indicated by Crowther et al., i.e., faster drying as compared to conventional drum process, see page 1, lines 33-40 and fluffing of the fibers is also obtained by way of the rapid evaporation, see Crowther et al., page 2, lines 17-26. Therefore, using Marsh drying technique would have been obvious to one of ordinary skill in the art in order to obtain the advantages discussed above, i.e., faster

drying and fluffing and with further advantage of eliminating the fluffing stage(s) of the references. That is with the use of Marsh drying technique the fibers would not need to fluffed before the drying steps, but both the fluffing and the drying would be carried out in the same stage.

Westland et al. teach the treatment of the fibers, wet pulp, with a treatment substance before drying to reduce the knot content, column 7, lines 33-35. The treatment substance selected from the group consisting of a surfactant and a mineral particle, column 7, lines 33-35. The fibers are the further treated with a crosslinker and a hydrophobic material, column 9, lines 10-11.

Regarding claims 9 through 28, Westland et al., Graef et al., Wu et al., and Naieni teach knots and nit accept levels within the claimed levels. Note also that producing a pulp with a predetermined knot, nit accept and fines counts falls within the level of ordinary skill in the art as an optimization process. That is, to obtain a pulp with low knot, nit count and with accepts and fines as claimed a stricter refining and/or screening needs to be done. Optimizing result-effective variables is within the levels of ordinary skill in the art, as a simple routine experimentation, *In re* Antoine, 559 F2d 618, 195

It has been held that "[T]eachings may be obvious in the technological sense even though business or economic considerations would previously have counseled against such." *In re* Farenkopf, 713 F2d 714: 219 USPQ 1

Response to Arguments

2. Applicant's arguments with respect to claims 1-28 and 40 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

José A Fortuna
Primary Examiner
Art Unit 1731

JAF